

SPECIFICATION AMENDMENTS

Please amend the title to read in its entirety as follows:

~~FLAT OPTICAL CIRCUIT, DESIGN METHOD FOR WAVE MOTION PROPAGATING
CIRCUIT AND COMPUTER PROGRAM~~

PLANAR LIGHTWAVE CIRCUIT, DESIGN METHOD FOR WAVE PROPAGATION
CIRCUIT, AND COMPUTER PROGRAM

Please replace paragraph [0117] of the English translation with the following amended paragraph:

[0117] Besides, as shown in Fig. 14, in the crossing planar lightwave circuit according to the [[fourth]] sixth embodiment, not only the widths of the cores of the optical waveguides are varied, but also one or more insular clad portions 161 equal in the refractive index to the clads can be caused to exist sporadically inside those cores of the optical waveguides in which the above phase difference between ψ and Φ^* is minimized.

Please replace paragraph [0185] of the English translation with the following amended paragraph:

[0185]

(Twelfth Embodiment)

The [[eleventh]] twelfth embodiment according to the present invention will be described with reference to Fig. 30 through Fig. 34 (A and B).

Besides, in the ensuing embodiment, it shall be assumed that the wave propagation direction of a wave propagation circuit is indicated by a z-axis, that two axes orthogonal to the z-axis are an x-axis and a y-axis, and that the inlet position of a wave lies at $z = 0$, while the outlet position of the wave lies at $z = L$.

Please replace paragraph [0203] of the English translation with the following amended paragraph:

[0203] Fig. 36 shows the initial values of the refractive index distribution employed at the step [[311]] 321 of the design method for the wave propagation circuit in the thirteenth embodiment as shown in Fig. 35. As shown in Fig. 36, a core [[451]] 351 of constant film thickness is embedded in a clad layer [[452]] 352, and the refractive index of the clad layer [[452]] 352 is 1.44428, and the thickness thereof is 60 μm , while the refractive index of the core [[451]] 351 is 1.45523, and the thickness thereof is 6 μm . The inlet of the lightwave circuit lies at $z = 0$, and the outlet thereof lies at $z = L = 1000 \mu\text{m}$.